

EAI

The Many Sides of EAI®

at SJCC

Analog/Digital/Hybrid



There are many sides of EAI...as a manufacturer of analog, digital and hybrid computers; X-Y plotters; special purpose systems and instruments...as an innovator, a pioneer in scientific computation and simulation...in new and efficient ways for solving problems.

At this 1966 Spring Joint Computer Conference, consider that side of EAI which designs, demonstrates and delivers consistently superior scientific computation equipment.



EAI 8400 Digital Computing System

The EAI 8400... a digital computer designed to solve scientific problems... a computer committed to expanding the creativity of the scientist and engineer in the modern simulation laboratory.

Every feature required for complex simulations and scientific computations is offered; ultra high-speed; independent sub-system construction; dynamic storage re-allocation; 32-bit word; exec bits; advanced software; built-in characteristics to advance the true man/machine relationship. Simply stated, the EAI 8400 delivers *usability*.

The EAI 8400 is the first digital computer designed expressly for simulation. It returns the scientist to the computer loop. For the first time, he can take the traditional analog model building, trial-and-error design process with a digital computer... in real-time and on-line.

There are other sides to the EAI 8400 Digital Computing System. This powerful medium-scale computer employs a multi-programming mode of operation which permits digital background batch-type processing during man/machine or on-line operation. No processing time is wasted. Don't you waste time. Discuss this powerful machine with the man in the blue blazer at the EAI booth, S.J.C.C.



EAI 8800 Analog/Hybrid Computing System

Take one analog/hybrid computer whose cumulative features add to a vastly superior machine... a proven computer with over 30 on order, more than 10 of these already shipped... then add a brand new component which sets-up analog functions in 5 seconds. That makes for fast computer problem turn-a-round or efficient multi-shift operation.

The new EAI Card-Programmed Diode Function Generator, designed for the EAI 8800, reduces DFG set-up time by 98%. Operation is quick and simple. Functions are pre-punched into a single 80-column card. When read by the CPDFG (a static card reader with decoding matrices and silicon diodes), the DFG is set-up automatically. After set-up the card is filed and ready for use... again, again, and again.

At Spring Joint Computer Conference, the CPDFG is being demonstrated by setting-up the EAI 8800 for an aerospace problem which examines lift characteristics for given aircraft wing profiles as related to air density and angle-of-attack. Let a man in a blue blazer explain the fine points of this time-saving unit.

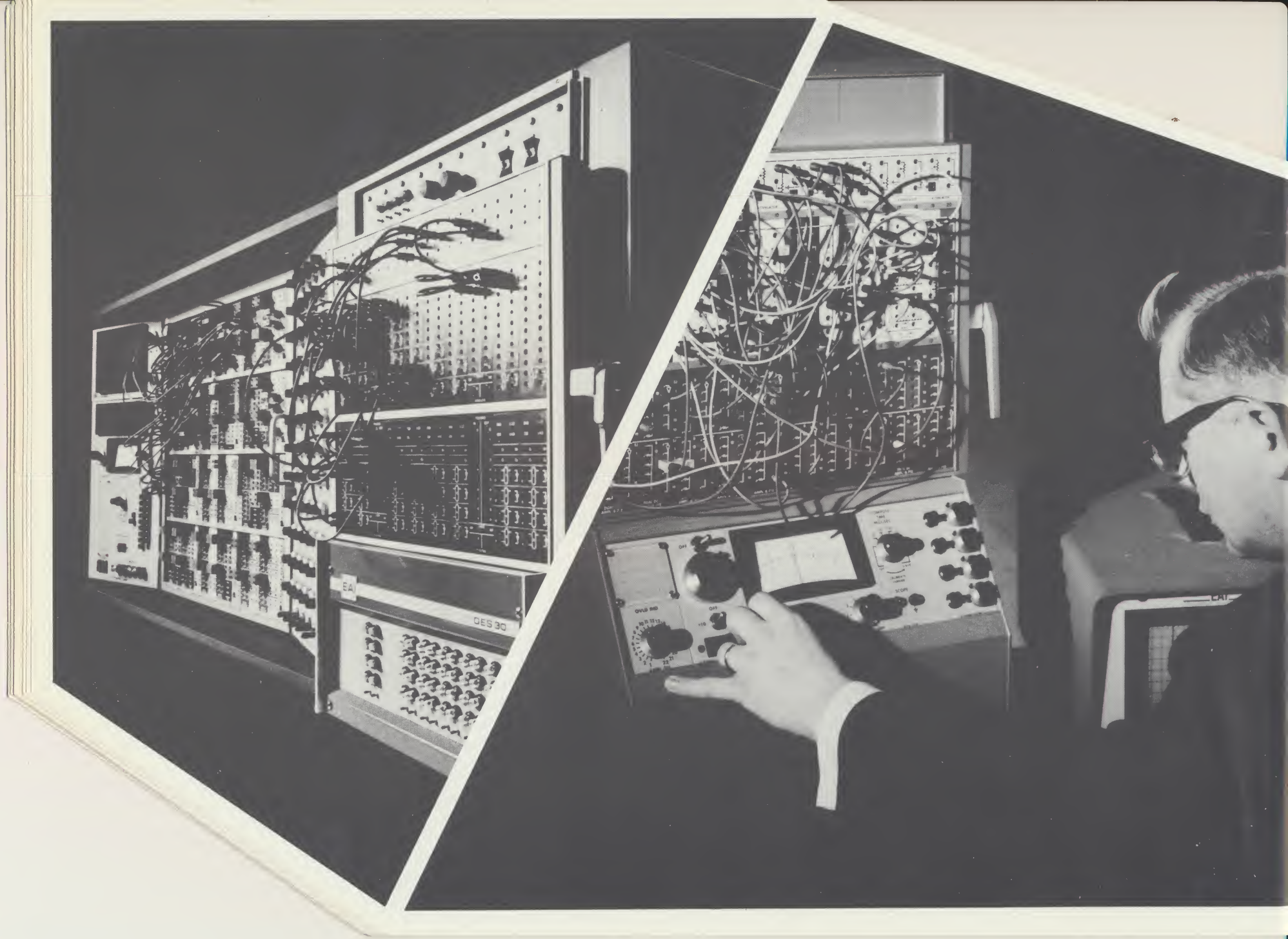
EAI 8900 Hybrid Computing System

There's more to connecting an analog and digital computer together and calling the result a hybrid. Hybrid can mean hardware designed, right from the drawing board to work well together... as a standard system... from one supplier. No problems of lack of understanding, multiple responsibility, interfacing, trouble-shooting, or individual performance compromise are possible. With a standard system, the user gets a better totally integrated system on the air faster.

Hybrid means a standard system of comprehensive software already written and ready for immediate use to solve complex problems. More programming effort is devoted to a standard system since efforts are amortized over a broader base.

Hybrid means a standard system of documentation, training, field service, and applications consultation. Future cross-fertilization among many users and situations benefits all. Only with a standard system does the user benefit from the ingredient only multiple installations can supply... experience.

Hybrid means the EAI 8900 Hybrid Computing System... the standard system.



EAI TR-48/DES-30 Analog/Hybrid Computing System

58 amplifier capacity... wide usable bandwidth... no velocity limiting to 96KHz... high static and dynamic accuracy... relay or electronic mode control... four independent time scale changes... high-speed electronic comparators... push-button readout... solid-state digital voltmeters... rep-op display...

there's all that—plus more—in the EAI TR-48 Analog Computer. Here is the *standard* for all

desk top analog computers. And, when a DES-30 Digital Expansion System is added, the combined units—still desk top—handle analog/hybrid problems. At SJCC, a TR-48/DES-30 is used in the simulation of a 2-degree of freedom space vehicle whose attitude is controlled by positioning jets.

You can participate in the demonstration by "flying" this space vehicle. See if you can outmaneuver the digital control system simulated on the computer. Just speak to the man in the blue blazer.

EAI TR-20 Analog Computer

More than 1500 units in university classrooms and industry continue daily to demonstrate the exceptional value and success of the TR-20 as a problem-solving tool. One unique application is the hydraulic transients problem solved by one of industrial TR-20 users. The object of the simulation was to determine when each of three pumps should be activated to prevent overflow. Sounds easy? Ask a man in a blue blazer for a try.

EAI TR-48/DES-30 Analog/Hybrid Computing System
(Photo left)

EAI TR-20 Analog Computer
(Photo right)



EAI 680 Analog/Hybrid Computer

There are large computers for big labs; little computers for small labs. The EAI 680 is an economical analog/hybrid computer which fills the requirements for labs of all sizes. It was designed specifically to grow with the user's requirements—*analog or hybrid*. Start with a basic analog computer... expand to 156 analog amplifiers and an extensive complement of non-linear and digital logic modules... then expand with a fast, stored-program digital computer to give full hybrid capability. The basic

680 system is completely pre-wired to accept the full complement of plug-in computing components. It can be expanded economically to keep pace with user requirements and ability to formulate more sophisticated models for simulation.

At SJCC, the EAI 680 is demonstrating automatic high-speed iterative computation and plotting of stability areas of a control system. The man in the blue blazer has the facts. Find out how this high-performance computer can be sized to your requirements.



EAI 3500 Magnetic Tape DATAPLOTTER®

Imagine, for a moment, taking 8mm movies of a draftsman drawing electronic circuit diagrams or complex curves at normal speed. Then, imagine projecting these films 37 times faster than normal. That is how fast an EAI 3500 Magnetic Tape Dataplotter can draw these same diagrams. It is fast, accurate and reliable.

The EAI 3500 DATAPLOTTER represents a modern and efficient way to develop complex 2-dimensional drawings for industry. When combined with an 8-pen turret and a 48-character symbol printer, the EAI 3500 DATAPLOTTER produces drawings superior to those produced by a draftsman. It eliminates repetitious routine drafting, resulting in a more efficient use of manpower skills. Ask a man in a blue blazer for a demonstration.

There are many other sides to EAI. Contact your local EAI Sales Representative and have him show the side which can be of most value to you.

EAI[®]

ELECTRONIC ASSOCIATES, INC. *West Long Branch, New Jersey*



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